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ABSTRACT

This paper (in the form of a dialogue) tells the stories of two members of a remarkable family of nine children, the Flexners of Louisville, Kentucky. The paper focuses on Abraham and Simon, who were reformers in the field of medical education in the United States. The dialogue takes Abraham Flexner through his undergraduate education at Johns Hopkins University, his founding of a school that specialized in educating wealthy (but underachieving) boys, and his marriage to Anne Laziere Crawford. Abraham and his colleague, Henry S. Pritchett, traveled around the country assessing 155 medical schools in hopes of professionalizing medical education. The travels culminated in a report on "Medical Education in the United States and Canada" (1910). Abraham capped his career by creating the first significant "think tank," the Institute for Advanced Study in Princeton, New Jersey. The paper also profiles Simon Flexner, a pharmacist whose dream was to become a pathologist. Simon, too, gravitated to Johns Hopkins University where he became chief pathologist and wrote over 200 pathology and bacteriology reports between 1890-1909. He also helped organize the Peking Union Medical College in Peking, China, and was appointed Eastman Professor at Oxford University. (BT)

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U.S. Medical Education Reformers Abraham Flexner (1866-1959) and Simon Flexner (1863-1946).

By

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Franklin Parker

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U. S. Medical Education Reformers Abraham Flexner (1866-1959) and Simon Flexner (1863-1946). By Franklin Parker and Betty J. Parker. P.O. Box 100, Pleasant Hill, Tenn. 38578, USA. Email: bfparker@multipro.com

Betty: We review first *Abraham Flexner, An Autobiography* (NYC: Simon & Schuster, 1960 revision of his *I Remember*, 1940). Frank, who were the Flexners?

Frank: The Flexners of Louisville, Ky., were a remarkable family, nine children of immigrant German Jews, the father a peddler in the South. We focus on Abraham Flexner, later on Simon Flexner, each outstanding in medical education in the U.S. and beyond. We tell later how Abraham Flexner encouraged our own research 45 years ago. Betty, briefly characterize Abraham Flexner.

Betty: Teacher, researcher, and philanthropic foundation executive, Abraham Flexner won early attention for his private Flexner preparatory school in Louisville, successful in getting lazy but wealthy boys into Ivy League colleges. His first critical book, *The American College* (NYC: Century Co., 1908), prompted a Carnegie foundation executive to ask him in 1908 to examine medical schools in the U.S. and Canada. His 1910 Flexner Report created a revolution, remade medical education in the U.S. and beyond, exposed medical quackery, made science, medicines, and supervised clinical training central in the professional preparation of physicians. He helped make medical doctors top professionals, highly esteemed, valued, and well paid.

Frank: Abraham Flexner was at the center of Carnegie, Rockefeller, and other multimillion dollar foundations that tackled difficult problems—educational, social, racial, health, and others—first in the U.S. South, then nationally, and internationally. •He created in 1930 the first significant U.S. think tank, the Institute for Advanced Study, Princeton, N.J. As its first director he brought from Hitler's Germany Albert Einstein as mathematics professor, the Einstein *Time* magazine named "Man of the 20th Century." We tell later of Abraham's equally important brother, Simon Flexner. But first, Betty, tell of their immigrant father, Morris Flexner.

Betty: The first Flexner in the U.S., Morris Flexner (1819-1882), grandson of the chief rabbi of Moravia and Bohemia, was born in Germany to an impoverished family. Because his parents had more children than they could feed, Morris was sent at age 13 to live with an uncle in Strasbourg, Alsace, on the French-German border. There he was a teacher for a time, very poor, hoping for a better life in the United States. He spent many days in steerage on a sailing ship to NYC, worked there two years among French-speaking Jews, and lived hand-to-mouth. Knowing of French-speaking Jewish countrymen in New Orleans, hoping to do better there, he arrived in New Orleans during a yellow fever epidemic. He was stricken and barely recovered at a charitable hospital run by Catholic nuns. An unknown French-speaking Samaritan fed him, heard him speak of a countryman living in Louisville, Ky., and paid his fare to Louisville.

Frank: He arrived in Louisville on crutches, recovered, and became, like his friend, a pack peddler selling goods house to house, store to store. Morris Flexner became adept at sharing news and gossip. Jovial and likable, he won customers and friends and was often asked to stay for meals and for the night. He bought a crippled horse for $4 and soon graduated to a better horse and

wagon. On his travels he stopped frequently in Louisville at a Jewish merchant's house, the Godshaw family. There he saw and was smitten by an immigrant French-speaking Jewish seamstress, Esther Abraham, whom he married. Betty, describe Esther Abraham.

Betty: Esther Abraham (1834-1905) was born in Germany near the French border. Her father, a dealer in cattle and other items, sent her to school to age 13. When she was 16, an aunt in Paris with a lingerie shop took in Esther and her sister and trained them as seamstresses. Their Uncle Godshaw, the Louisville, Ky., merchant, visited them several times in Paris and sent them tickets for passage to America. After some weeks crossing the Atlantic the sisters were met in NYC in Sept. 1855 by a cousin and reached Louisville, where they lived with Uncle Godshaw's family. They successfully made and sold women's Paris fashions. Esther, who was popular socially, took to Morris Flexner. He was 34, she was 22, when they married on Sept. 15, 1856.

Frank: A year later when the oldest of their nine children was born, Jacob (1857), Morris Flexner, with his family, went into business in Lawrenceburg, Ky. But Civil War raiders made that town unsafe. After six years in Lawrenceburg (1857-63), the enlarged Flexner family returned to Louisville. •Morris sold hats wholesale on the road, traveling in Tenn., Ala., Ga., elsewhere in the South. But the Panic of 1873 ruined him. From 1873 the family lived hand-to-mouth, dependent on first-born Jacob who, having been apprenticed to a druggist, had his own drugstore until the Panic of 1893 ruined him. The older children had to go to work to earn enough to pay the family bills. •Betty, what of Abraham Flexner's early life?

Betty: While he was a student at Louisville Male High School, Abraham Flexner worked in the private Louisville Library six days a week, 2:30 to 10 p.m., checking and shelving books, eating a cold supper behind the card catalog, earning $16 a month. Besides charging and shelving books, he read the classics and listened to adult conversations on politics, literature, religion, music, and art. •In 1884, age 17, just graduated from high school, there came, he later wrote, "The decisive moment of my life." Oldest brother Jacob told Abraham: take this $1,000 I saved from my drugstore and go to college in Baltimore at Johns Hopkins University (*Abraham Flexner, An Autobiography*, p. 24).

Frank: Why Johns Hopkins University? Jacob had heard of its high reputation from a Louisville friend, a view confirmed by the medical doctors who came to his drugstore. •Philanthropist Johns Hopkins (1795-1873) was a Baltimore Quaker, bachelor, merchant, and the largest stockholder of the Baltimore and Ohio Railroad. In 1867, B&O RR Pres. John Work Garrett (1820-84), knowing that Johns Hopkins sought advice about his will, brought Hopkins together with visiting Massachusetts-born George Peabody (1795-1869), a former Baltimore merchant. Peabody was then a London-based banker and a well-known philanthropist. After dinner Hopkins asked Peabody why and how he came to give away his millions. Peabody told Hopkins: Like you, I wanted to be rich. I worked hard and succeeded. But when age and illness came upon me, I wanted to use my money for others. I found trustees who carried out my wishes for U.S. libraries, museums, and a music conservatory to serve people; and for low-cost housing for London's working poor (from 1862). Seeing the good my institutes did made

me happy. •Johns Hopkins soon after recorded his will, leaving some $7 million to found Johns Hopkins University, Medical School, and Hospital.

Betty: Its first President Daniel Coit Gilman (1831-1908) made Johns Hopkins University the first graduate university in the U.S. It was based on the German university idea that a university creates new knowledge as well as educates new generations. While Abraham Flexner learned the classics in the Hopkins undergraduate program, Hopkins doctoral candidate Woodrow Wilson and others were writing the books and experimenting in the labs that would make them leaders in their respective fields.

Frank: Flexner told his Greek prof. that he was weak in Latin and Greek. The prof. said: See me each day at 1 PM. I can give you only 5 minutes but I will tell you what to read and check to see what you have learned. •Concerned because he had only enough money for two years' tuition and board, he asked for and was permitted to double up on classes. At final exam time, finding that several exams came at the same time, he explained his dilemma to Pres. Gilman. Pres. Gilman said: all we require is that you know the subjects. I will arrange to stagger your conflicting exams. •Flexner later remarked at the informality at Johns Hopkins, and at the understanding and help that enabled him to get a bachelor's degree in two years.

Betty: Back in Louisville (1886), Abraham taught two years, aged 20 to 22, in the Louisville Male High School from which he had graduated. In the late afternoons and evenings he tutored well-to-do boys whose parents anxiously wanted them to get into college. This was a portent of things to come. •A prominent Louisville lawyer whose only son had been expelled from an eastern preparatory school asked Flexner to help get his son into Princeton. Flexner said: if you can get together from your friends five of their sons for tutoring at $500 a year each, I will prepare your son for Princeton. •Thus began "Mr. Flexner's School" which, for 15 years (1890-1905), won high praise locally and nationally. Its success brought a letter from Harvard Pres. Charles W. Eliot (1834-1926), who wrote to Flexner: boys from your school come to Harvard younger than most and graduate in a shorter time. How do you do it?

Frank: Flexner used every strategy on boys who had failed elsewhere: humor, encouragement, emulation, competition. He played able students against indolent ones, built on what each knew, patiently overcame their weaknesses. Flexner kept the school small, tuition high, and discipline strict. He drilled, joked, cajoled, used every means to get his boys into ivy league Harvard, Yale, Princeton, and elsewhere. •In the early 1890s a prominent Louisville businessman, John M. Atherton, asked Flexner to tutor his bright niece, Anne Crawford, for entrance to Vassar. Flexner demurred at first but then thought it might be fun to teach a young woman.

Betty: Anne Laziere Crawford was born while her parents visited Ky. but she was brought up in Ga. Her great grandfather, William Harris Crawford (1772-1834), was a U.S. senator from Ga., U.S. Minister to France, U.S. Secretary of War and later of the Treasury. He ran unsuccessfully for the U.S. presidency in 1824. Anne's grandfather was a Methodist minister

and president of Mercer College. Her own father was impoverished by the Civil War. She moved to Louisville to live with her uncle.

Frank: Abraham Flexner did help get Anne Crawford into Vassar, where she edited the college literary magazine. She returned to Louisville, taught in "Mr. Flexner's School" two years, and published several stories. They went bicycling together and became engaged in 1896. But because Abraham, eight years older than Anne, was the Flexner family's financial mainstay, they put off marriage for over two years. During that time Anne went to NYC, reviewed Broadway plays for the Louisville *Courier-Journal*, studied writing at New York University, and began to write successful plays.

Betty: Anne returned to Louisville and married Abraham Flexner in June 1898. While Abraham ran his school, she wrote plays, some for the leading actress Minnie M. Fiske (1865-1932). Anne Flexner's biggest dramatic success was *Mrs. Wiggs of the Cabbage Patch*, based on a best selling novel. Her play opened in NYC on Sept. 3, 1904, ran for seven seasons, was taken on the road by three touring companies, and was presented in England, Australia, China, India and Korea. She wrote other plays but none as successful as *Mrs. Wiggs of the Cabbage Patch*.

Frank: In 1904 Anne asked Abraham: If you had not married me, what would you have done by now? He answered: Quit teaching and gone to Europe. She said: Then that's what we will do. •The three Flexners (they had a young daughter) first went to Cambridge, Massachusetts, where he studied at Harvard's graduate school of education (1905-06). They then sailed for England and the Continent. Armed with letters of introduction, Abraham attended lectures at Oxford and Cambridge universities, visited Rugby and Eton, and he studied at the universities of Berlin and Heidelberg. •In Europe, reflecting on his 17 years of teaching, he wrote his first book, *The American College* (NY: Century Co., 1908). It criticized trends he had observed at Harvard and other colleges. He criticized **1**-free electives which allowed students unwisely to take only easy courses, **2**-large classes which limited student interaction, and **3**-overuse of teaching assistants who, busy and harried as graduate students themselves, were unprepared to teach effectively.

Betty: One of the few who read his book was Henry Smith Pritchett (1857-1939), president of the new Carnegie Foundation for the Advancement of Teaching. They met several times and Pritchett asked Flexner: Would you consider making a study of U.S. medical schools? Taken aback, Flexner said: You are confusing me with my medical doctor brother Simon Flexner. No, said Pritchett, I know Dr. Simon Flexner and I know that the American Medical Association has a committee examining medical schools. But medical doctors can't or won't criticize their colleagues. I want you because you are an outsider, an educator and a critic. You can call the shots as you see them.

Frank: Henry S. Pritchett was a graduate of a Missouri college his father had founded. He earned the Ph.D. in science at the University of Munich in 1894, and became an astronomer; first at the U.S. Naval Observatory. He then taught astronomy at Washington University, St. Louis, Mo. (1883-97). He headed the U.S. Coast and Geodetic Survey (1897-1900). He became

president of the Massachusetts Institute of Technology (1900-06). There he suggested to steel magnate Andrew Carnegie that he establish the Carnegie Foundation for the Advancement of Teaching, which Pritchett headed for 24 years (1906-30). •Pritchett's list of things to accomplish at the Carnegie Foundation included: **1**-a national pension plan for teachers and professors (today's TIAA), **2**-a national standard for high school graduation (the Carnegie unit), and **3**-studies to uncover weaknesses in and to professionalize schools of medicine, law, engineering, and others.

Betty: Flexner found, in reading the history of medical education, that in all there had been 457 medical schools in the U.S., some still-born, most short lived, 155 of which survived in 1907, all private, almost all designed to make money. Nearly all accepted any applicant who could pay, used as teachers local physicians who taught part time for extra money. There were no state licensing boards. Few medical schools were connected to a hospital or had clinics, research facilities, or good equipment. Medical students were still little more than apprentices.

Frank: Flexner soon saw that Johns Hopkins had the best medical school in the United States. Among its first topnotch medical faculty were Dr. William Henry Welch (1850-1934), pathology (he had organized the first U.S. pathology laboratory at NYC's Bellevue Hospital); Howard Atwood Kelly (1858-1943), gynecology and obstetrics; William Stewart Halsted (1852-1922), surgery; and William Osler (1849-1919), medicine. Betty, why did Hopkins Medical School become Flexner's model?

Betty: Entrance requirements were high and its medical faculty were highly trained, mostly in European universities. Medical students examined and studied patients in hospital wards under experienced physicians, discussed symptoms, made lab tests, and consulted about the best course of treatment. Patients benefited from diagnosis, lab analysis, treatment. Medical student graduates became competent doctors.

Frank: Visiting the 155 medical schools in the U.S. and Canada, Flexner looked for **1**-entrance requirements: what were they? Were they rigidly followed? He looked at **2**-faculty: size, training, how many full time (few), how many part time (most)? **3**-He checked finance: what endowment, what fees, what financial stability? **4**-He looked at laboratories and equipment: how much, what kind, what quality, how much used, and how often updated? **5**-He looked at the library: books, journals, quality, quantity, upkeep, budget? **6**-Most important, he checked access to hospital bed patients: by medical faculty, by medical students; and the thoroughness of supervision in hospital clinics by an experienced physician of each student.

Betty: Pritchett and Flexner let medical school heads know when and how Flexner planned to evaluate their schools. Flexner talked to medical school heads and faculty (when they were present), toured the facilities, returned to Louisville, drafted his report (shared with Pritchett), and sent this draft report to the medical school heads for any corrections. His final draft report, he let them know, would be shared with their local newspapers and journals before publication. •Flexner had to deal with subterfuge, as when doors in one medical school, marked "Anatomy," "Physiology," and "Pathology," were locked. No keys nor janitor could be found. When that

medical school dean left Flexner at the railway station, he missed his train purposely, went back to the school at night, found and bribed the janitor to open the locked doors, discovered the rooms to be unequipped classrooms, and so stated in his report. •Pritchett and Flexner were threatened with lawsuits and Flexner received threatening letters. •A year and a half later he finished inspecting the 155 medical schools and completed his report, *Medical Education in the United States and Canada* (NYC: Carnegie Foundation for the Advancement of Teaching, Bulletin No. 4, 1910).

Frank: Of the consequences of his report, Flexner wrote (I paraphrase): Such a rattling of dead bones had never been heard in this country before or since. Schools collapsed to the right and left, usually without a murmur. Many pooled their resources. Seven schools of Louisville were reduced to one. Fifteen schools in Chicago combined to three." •Here are a few excerpts from Bulletin No. 4: •On Birmingham Medical College [Ala.]: "A stock company...largely given over to...gunshot and other wounds.... The dispensary service is...unorganized." •On California Medical College: "Entrance requirements nominal.... No dispensary...no access to the County Dispensary. The school is a disgrace...." •On the University of Louisville Medical School: "Entrance requirements: less than a high-school education...." •On Georgia College of Eclectic Medicine & Surgery: "...A building [of] filthy conditions...Its anatomy room, containing a single cadaver is indescribably foul...." (Bulletin 4, p. 87).

Betty: Flexner's 1910 medical education report made headline news at the height of large scale growth of philanthropic foundations. Post Civil War devastation, 50 years earlier, gave rise to funds and foundations, first George Peabody's pioneer $2 million Peabody Education Fund (1867-1914) to aid white and black public schools in the South. This Fund inspired the John F. Slater Fund (1882-1937), the Julius Rosenwald Fund (1917-48), and the Anna T. Jeanes Fund (1907-37), all northerner funds to aid black education in the South. Four Conferences on Education needs in the South were held during 1889-1902. These conferences led to the Southern Education Board (1901-14), which led to the multimillion dollar John D. Rockefeller-funded General Education Board (1902-39), which soon employed Abraham Flexner.

Frank: In 1889 Scottish-born steel magnate Andrew Carnegie's (1835-1919) wrote an essay, "The Gospel of Wealth." In that essay he urged the rich to use their wealth to correct social ills and to advance the public good. His Carnegie Foundation for the Advancement of Teaching was only part of his $350 million gifts, including Carnegie public library buildings. Much larger foundations were started by John D. Rockefeller, Sr. and Jr., devout Baptists. Carnegie, the Rockefellers, and other giants of industry now organized giant philanthropic funds, giving unheard of millions to help correct social ills. Flexner's 1910 medical school report appeared at this crucial time.

Betty: Flexner's report impressed John D. Rockefeller, Sr.'s philanthropic advisor, The Rev. Frederick T. Gates (1853-1929), a Baptist minister. Gates once told Rockefeller, Sr.: Your wealth is piling up and will bury you. It will ruin your children and their children unless you use it for

vast public good. Gates and the Rockefellers favored funds that aided medicine and the conquest of disease. This purpose was dramatic, brought public approval, and offset bad publicity about Rockefeller as the monopolist Standard Oil robber baron. •Gates got Abraham Flexner to work for the General Education Board (1913-28, 15 years), funneling millions to remake U.S. medical schools. John D. Rockefeller, Sr.'s recent biographer Ron Chernow (*Titan, the Life of John D. Rockefeller, Sr.*, NY: Random House, 1998, p. 493) wrote: "by the time Flexner left the GEB in 1928, it had distributed more than $78 million to...the scientific approach to medical education...[creating] nothing less than a revolution.... In its thirty-year existence, the GEB dispensed $130 million, equal to more than $1 billion today."

Frank: Abraham Flexner capped his career by creating the nation's first significant think tank. In 1930 he was approached by Newark, N.J., merchant Louis Bamberger (1855-1944) and his sister, Mrs. Caroline Bamberger Fuld (1864-1944). They asked his advice on a foundation they wanted to establish. As background, Flexner explained that German universities had earlier led the world in creating new knowledge. But since Germany's defeat in World War I, U.S. scholars no longer flocked to German universities. The U.S. needed an Institute for Advanced Study, an intellectual retreat, a place without students or courses where scholars, unhindered, could discover new knowledge. The donors asked what such an institute would cost. Flexner said $5 million. The donors agreed. Their gifts eventually totaled $18 million. Asked to be its first director, Flexner demurred. But his wife Anne insisted that he had to help get it started.

Betty: The Institute for Advanced Study was located in Princeton, N.J., near to but independent of Princeton University. Flexner first filled a mathematics professorship which did not require labs or buildings, just blackboards and chalk. He sought out Albert Einstein, already concerned about the rise of Hitler, who left Germany for Princeton and held the chair of mathematics to his death. Opening in 1933, the Institute for Advanced Study became a haven for many other European scholars fleeing the Nazis, including Danish physicist Niels Bohr (1885-1962). Other Institute scholars included John von Neumann (1903-57), who built an early giant computer there; physicist J. Robert Oppenheimer (1904-67), who led the Los Alamos, N.M., scientists in developing the atom bomb. Oppenheimer was the Institute's director during 1947-66. •The Institute for Advanced Study today has some 200 visiting U.S. and foreign scholars for up to two years, and 23 faculty in four schools: mathematics, natural science, social science, and historical studies. It was the model for and helped spawn a multitude of U.S. think tanks.

Frank: Abraham Flexner's wife Anne died in 1955. In 1957 he moved to suburban Washington, D.C., to be near his married daughter. He died Sept. 21, 1959, at age 92 (Obits., both Sept. 22, 1859: *Louisville Courier-Journal*, p. 16; *Washington Post*, p. B2,). He often quoted French chemist Louis Pasteur (1822-95): "Chance favors the prepared mind." He ended his 1940 autobiography *I Remember*, with a saying by Thomas Carlyle (1795-1881): "I burn that I may be of use." Betty, tell of our correspondence with Abraham Flexner and with his daughter.

Betty: In 1952, when Flexner's book, *Funds and Foundations* (NYC: Harper), was published, you and I were studying at George Peabody College for Teachers, Nashville, now Peabody College of Vanderbilt University. We soon went to read George Peabody's papers in Massachusetts, NYC, Baltimore, and in London, England. Since Flexner's chapter on the Peabody Education Fund described it as the first pioneer U.S. multimillion dollar foundation you wrote to him for his view of Peabody's importance. He encouraged us. After his death we published two articles on Flexner (*Journal of Medical Education*, 36, 6, June 1961, pp. 709-714 and *History of Education Quarterly*, 2, 4, Dec. 1962, pp. 199-209). Much later, in 1985, referring to our articles about her father, his daughter, Mrs. Jean Flexner Lewinson, wrote us. •Thus, our long-time interest in the Flexners. •Frank, what about Simon Flexner, as told by his son, James Thomas Flexner in *An American Saga: The Story of Helen Thomas and Simon Flexner* (Boston: Little, Brown, 1984)?

Frank: When Simon Flexner was 10 years old the Panic of 1873 bankrupted his father, plunged the struggling family into deeper poverty, and required those of the nine children who could work to do so. Simon, fifth born son, was small, weak, and shy. He was also mischievous and impish. He later wrote of his youth, "School did not [then] interest me." He had to repeat one school year, barely finished the eighth grade and, strange to say, never attended high school or college. Instead he held a succession of poorly paid dead-end jobs. •At 16 he contracted typhoid fever and almost died. He suddenly saw himself in a new light. Oldest brother Jacob got him an apprenticeship in Vincent Davis's drugstore. That good man encouraged Simon to attend night classes at the Louisville College of Pharmacy. Simon, earlier the family dunce, not only completed the pharmacy course but also won a gold medal. His son and biographer later wrote: "The ugly duckling had proven a swan" (James Thomas Flexner, p. 106).

Betty: Simon became a pharmacist in oldest brother Jacob's drugstore, slept in a room above the store, and was on call at night to mix and issue drugs. Jacob subscribed to pharmaceutical and medical journals, liked to expound and debate; his drugstore was soon a mecca for local physicians and a clearinghouse of medical information. In this milieu Simon acquired a microscope, learned its intricacies from other microscope enthusiasts among the visiting doctors, and was soon making medical slide analyses for them. Thus began Simon's yearning to become a pathologist, to use his microscope to study the origin and cause of disease, and then to discover medical cures. Although tied to the drugstore because of the Flexner family's financial needs, Simon did attend night courses at the nearby Medical Institute of the University of Louisville. He earned a dubious M.D. degree in 1889.

Frank: Meanwhile, Abraham had graduated from Johns Hopkins University, had taught in the Louisville Male High School, and was successful in the Flexner preparatory school. Knowing Simon's determination to become a pathologist, Abraham encouraged him to apply for a Johns Hopkins fellowship. Simon did apply but failed to get it. Seeing Simon's disappointment, Abraham said to him in 1890: From my prep school earnings I will give you enough money to study pathology at Johns Hopkins for one year. Simon went to Johns Hopkins and studied

under pathologist William Henry Welch, later his mentor, largely responsible for Simon's becoming a great discoverer of diseases and cures. •Thirty years later (June 1, 1920), Simon expressed his gratitude to Abraham. Simon wrote (I paraphrase): I owe you a great debt. Your sending me to Johns Hopkins and to Dr. Welch in 1890 meant more to me than anyone can ever know. You were a young man then. That you should have had the insight to know that Dr. Welch was the master in pathology who would remake my medical career was miraculous. I owe you an unredeemable debt. (*Abraham Flexner, An Autobiography*, p. 60). Betty?

Betty: Simon impressed Dr. Welch and others at Hopkins. He was offered a fellowship the following year, became Welch's assistant (1892), published studies in pathology, gained valuable experience fighting an outbreak of spinal meningitis in western Maryland in 1893, visited Europe to study pathology at Strasbourg and at Prague, and was associated with Johns Hopkins during 1890-98. •Studying diseases in the Philippines (1899), he discovered a widespread strain of the dysentery bacillus. He became pathology professor, University of Penn. (1899-1903), during which time (1901) he headed a U.S. Government commission investigating a bubonic plague outbreak in San Francisco. •In 1903 Simon became head pathologist in the newly organized Rockefeller Institute for Medical Research, NYC. In a 1905 NYC outbreak of spinal meningitis, building on what he had earlier learned in western Maryland, he found a serum that reduced mortality by 50 percent. In a 1907 epidemic of polio he identified the infectious virus and laid the basis for protective polio vaccines by Dr. Salk and others 50 years later.

Frank: Simon wrote over 200 pathology and bacteriology reports during 1890-1909. He edited the *Journal of Experimental Medicine* for 19 years. In World War I he was a Lt. Col. in the Army Medical Corps building up its medical laboratories. •Simon directed all the Rockefeller Institute branches from 1924 to his retirement in 1935. He helped organized the Peking Union Medical College in China; was appointed Eastman Professor at Oxford University (1937-38); wrote with his son James Thomas Flexner, a biography of William Henry Welch (*William Henry Welch and the Heroic Age of American Medicine* [NYC: Viking Press, 1941]), and wrote in all over 400 medical and pathological reports and other books. He received many honors and died in NYC at age 83, leaving his beloved wife, Helen, and two sons (*DAB, Supplement 4, 1946-50*, pp. 286-289). Betty, you must tell about his wife Helen.

Betty: Simon's wife, Helen Thomas Flexner, was born Aug. 14, 1871 (d. April 1956), descendant of Welsh Puritans who settled in Maryland, 1650s, and became prominent Baltimore Quakers. Her older sister, Martha Carey Thomas (1857-1935), earned a Zurich, Switzerland Ph.D. degree (1882), helped found Bryn Mawr College for Women (Pa., 1884), and was its dean and president (1894-1922) and a pioneer feminist. Their British relative by marriage was philosopher Bertrand Russell. They were distant cousins of Johns Hopkins, all Quakers. Their father, a Baltimore physician, was a Johns Hopkins University trustee and close friend of Pres. Daniel C. Gilman. •Helen Thomas also attended Bryn Mawr (1889), traveled abroad, and met Simon Flexner several times: when he studied under pathologist Dr. Welch at Johns

Hopkins Medical School, and again when she taught at Bryn Mawr and he was pathology professor at nearby University of Pennsylvania.

Frank: Simon was in love but overwhelmed by Helen's family culture. He thought her culturally and socially beyond him. She, too, thinking the gulf between them unbridgeable, rejected his first proposal, then had a change of heart. Despite doubts, they were married in 1903, when he was first connected with the Rockefeller Institute, NYC. She was 32, he was 40. •Theirs became a wonderful marriage of 43 years, this blending of the daughter of a well-to-do and well-connected Quaker family and the fifth son of a failed immigrant German Jewish peddler. One of their two sons was a mathematician and UN official. The second son, James Thomas Flexner, was a prolific author, most famous for his four-volume biography of George Washington. It was published in one volume for the U.S. Bicentennial (1976). It was the basis of a successful television miniseries (*George Washington*, 1984, 6 1/2 hours). •Abraham and Simon were the only Flexners who married out of their parents' faith. Helen, proud of his many honors, survived Simon by 10 years. Betty, what did Helen do for Simon?

Betty: Their son wrote: "She brought…him the broadness of knowledge and feeling he had yearned for during his restricted rise. Together they formed a team that created [The Rockefeller Institute,] one of the world's great scientific institutions." •Of the other Flexner children: Jacob (1857-1934), the druggist, become a successful medical doctor. His daughter, Jennie Flexner, started and headed the New York Public Library's Readers' Advisor's Office. Bernard (1865-1945), prominent lawyer and well known juvenile court reformer, endowed at Bryn Mawr a Mary Flexner lectureship and at Vanderbilt University an Abraham Flexner lectureship; was an ardent Zionist, never married and lived in NYC with sister Mary, who had earlier attended Bryn Mawr, supported by Abraham in whose Flexner School she later taught. Frank, any last word?

Frank: You and I have enjoyed this review of Abraham and Simon Flexner's contributions to medical education. Thinking of their immigrant parents' hardships, Abraham, in his *Autobiography* (p. 8), repeated what their mother often said long after Morris Flexner's death: "Time and again I heard her quote him as saying, 'Our children will justify us.'" Patriarch Morris Flexner was right. These two sons and others of the Flexner children left a rich heritage.

The Parkers came to Uplands May 5, 1994, from Western Carolina University, Cullowhee, N.C., where Franklin was visiting professor (1989-94). He retired from West Virginia University, Morgantown (1968-86). •The Parkers, a research and writing team, published among other works *George Peabody, a Biography* (Nashville: Vanderbilt University Press, 1971, revised 1995). They met at Berea College near Lexington, Ky., 1946, attended what is now Peabody College of Vanderbilt University, 1952-56, and are now writing *The Forgotten George Peabody (1795-1869), A Handbook A-Z of the Massachusetts-Born Merchant, London-Based Banker, and Philanthropist: His Life, Influence, and Related People, Places, Events, & Institutions.*